

We claim:

1. A wick comprising a fibrous wicking material in the form of a sheet or cloth which has been surface-modified by exposure to a glow discharge gas plasma so as to exhibit a horizontal wicking rate of at least about 1.0 millimeter per second in contact with a physiological fluid.
2. The wick according to claim 1 wherein the glow discharge gas plasma is formed in a blend made up predominantly of a mixture of oxygen with a saturated alkane chosen from the group consisting of methane, ethane and propane.
3. The wick according to claim 2 wherein the fibrous wicking material consists of a woven cotton-polyester fabric.
4. The wick according to claim 3 wherein the fibrous wicking material exhibits a horizontal wicking rate of at least about 2.0 millimeters per second in contact with a physiological fluid.
5. The wick according to claim 2 wherein the fibrous wicking material consists of a fabric devoid of cotton.
6. A diagnostic test strip suitable for analysis of an analyte in a physiological fluid comprising an immobilized reagent means for detection and measurement of the analyte, a fibrous wicking material in the form of a sheet or cloth having a portion thereof in contact with the immobilized reagent means, and a holder for said reagent means and wicking material, wherein the wicking material has been surface-modified by exposure to a glow discharge gas plasma and exhibits a horizontal wicking rate of at least about 1.0 millimeter per second toward a physiological fluid, wherein also a portion of a sample of physiological fluid placed on said wicking material at a site apart from said reagent means is conveyed by wicking to said reagent means for analysis.
7. The diagnostic test strip according to claim 6 wherein the glow discharge gas plasma is

formed in a gaseous blend composed predominantly of a mixture of oxygen with a saturated alkane chosen from the group consisting of methane, ethane and propane.

8. The diagnostic test strip according to claim 7 wherein the fibrous wicking material consists of a woven cotton-polyester fabric.

9. The diagnostic test strip according to claim 8 wherein the woven cotton-polyester fabric exhibits a horizontal wicking rate of at least about 2.0 millimeters per second toward a physiological fluid.

10. The diagnostic test strip according to claim 7 wherein the fibrous wicking material consists of a fabric devoid of cotton.

11. A method of analyzing an analyte in a physiological fluid comprising contacting a wick with a sample of a physiological fluid, and delivering a portion of the sample to an immobilized reagent means by wicking through the wick, wherein the wick comprises a fibrous wicking material in the form of a sheet or cloth that is surface-modified by exposure to a glow discharge gas plasma so as to exhibit a horizontal wicking rate of at least about 1.0 millimeter per second in contact with the physiological fluid.

12. The method according to claim 11 wherein the glow discharge gas plasma is formed in a gaseous blend composed predominantly of a mixture of oxygen with a saturated alkane chosen from the group consisting of methane, ethane and propane.

13. The method according to claim 12 wherein the fibrous wicking material consists of a woven cotton-polyester fabric.

14. The method according to claim 13 wherein the fibrous wicking material exhibits a horizontal wicking rate of at least about 2.0 millimeters per second in contact with a physiological fluid.

15. The method according to claim 12 wherein the fibrous wicking material consists of a fabric devoid of cotton.